



Commonwealth of Massachusetts Executive Office of Labor and Workforce Development

OSHA's General Industry Lead Standard 29 CFR 1910.1025

Marvin Lewiton, MS, CIH
MA Division of Occupational Safety
On-Site Consultation Program

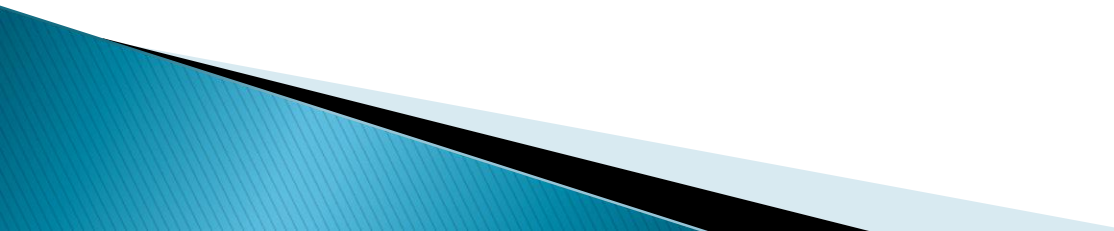
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Timothy P. Murray, Lieutenant Governor

Joanne Goldstein, Secretary

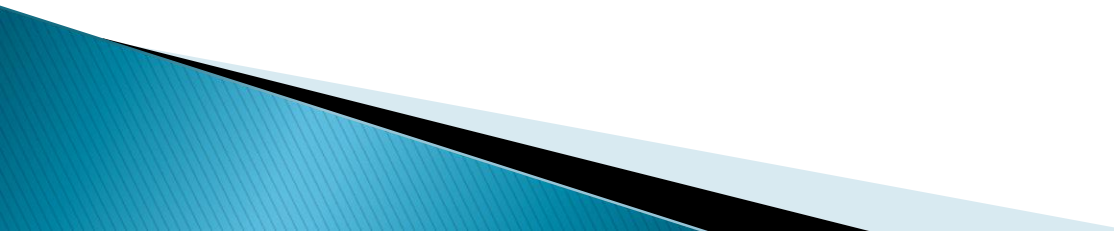
George Noel, Director

Heather Rowe, Acting Commissioner

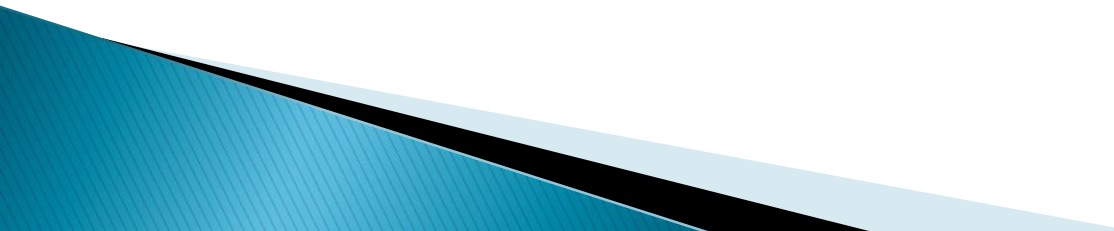
Where do we find lead?

- ▶ Paint pigments
 - ▶ Cosmetics
 - ▶ Solder and other metal alloys
 - ▶ Plastics
 - ▶ Pottery glazes
 - ▶ Ammunition and fishing tackle
- 


Occupationally:

- ▶ Electronics assembly
 - ▶ Batteries
 - ▶ Auto body repair
 - ▶ Ceramics
 - ▶ Stained Glass
 - ▶ Foundries
- 

Recreationally:

- ▶ Fishing
 - ▶ Shooting
 - ▶ Arts & Crafts
 - ▶ Home electronics
 - ▶ Home renovation
- 


Why do we care about lead?

- ▶ CNS damage
 - ▶ Anemia
 - ▶ Reproductive effects
 - ▶ Liver and kidney damage
 - ▶ Probable carcinogen
 - ▶ Heme system damage
 - ▶ Storage in body
 - ▶ Effects in children at very low levels
- 

Working safely with lead?

- ▶ Engineering controls:
 - ~ Enclosure
 - ~ Exhaust ventilation

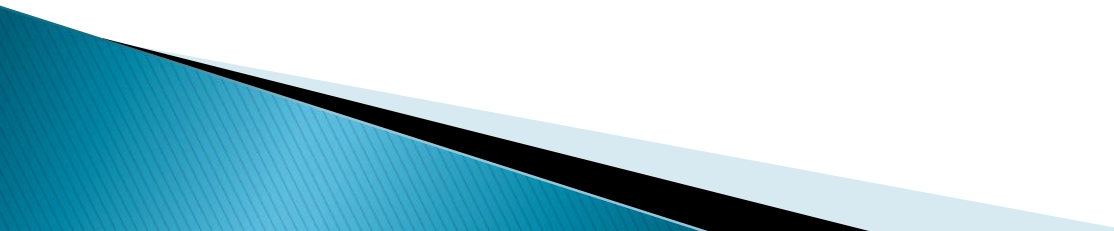
Work practices:

- ~ Cleanup/decon
 - ~ Personal hygiene
 - ~ Respiratory protection
 - ~ PPE
- 

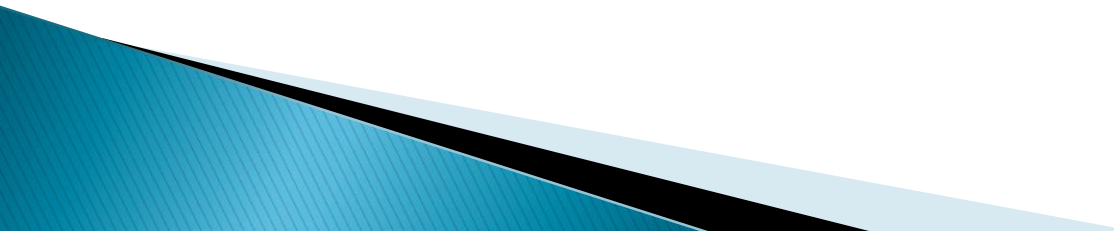
The Lead Standard

- ▶ Applies anywhere workers are potentially exposed to lead
- ▶ Permissible Exposure Limit (PEL)
- ▶ 50 ug/m³ as 8-hour average
- ▶ or
- ▶ 400 ug/m³ ÷ hours worked (> 8)
- ▶ Action Level (AL) 30 ug/m³

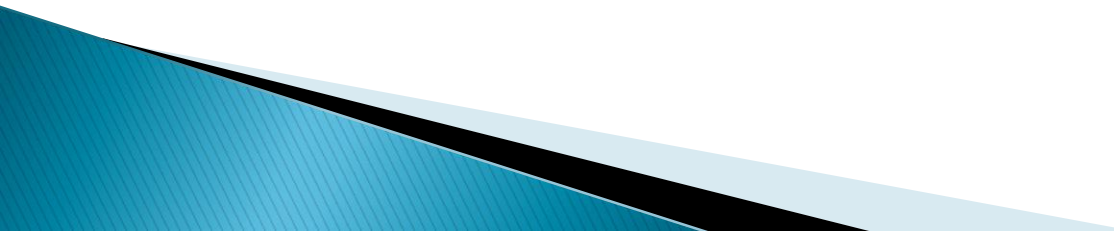
Exposure Determination:

- ▶ Is any employee exposed at or above the Action Level?
 - ▶ How? Evidence of exposure, previous air monitoring, employee symptoms, etc.
- 

Exposure (air) monitoring

- ▶ Full shift (at least 7 hours)
 - ▶ At least one sample per shift / job category / work area
 - ▶ Representative of employee's normal daily lead exposure
- 


If the monitoring shows:

- ▶ All employees under Action Level, you're done
 - ▶ Exposures over Action Level but under PEL, at least every six months
 - ▶ Exposures over PEL, quarterly
- 

Additional monitoring:

- ▶ Must be performed for any new operation, process, personnel change, or other factor that might increase potential exposure to lead

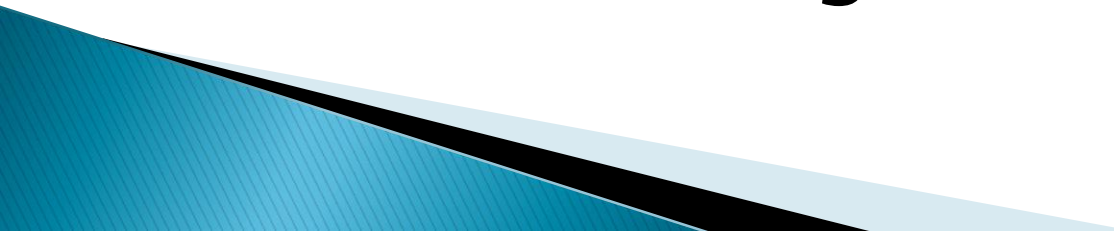
Employee notification:

- ▶ Employees must receive information about their exposures, in writing, within fifteen (15) days.
 - ▶ If exposures over PEL, information must include corrective actions designed to reduce exposures
- 

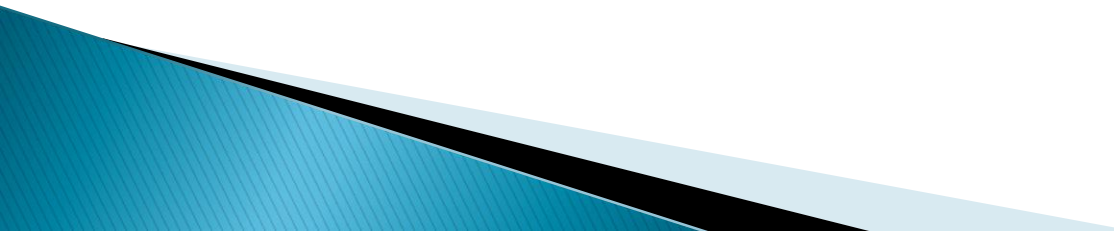
If exposures above PEL:

- ▶ Must implement engineering and work practice controls
- ▶ Respirators are secondary controls!!

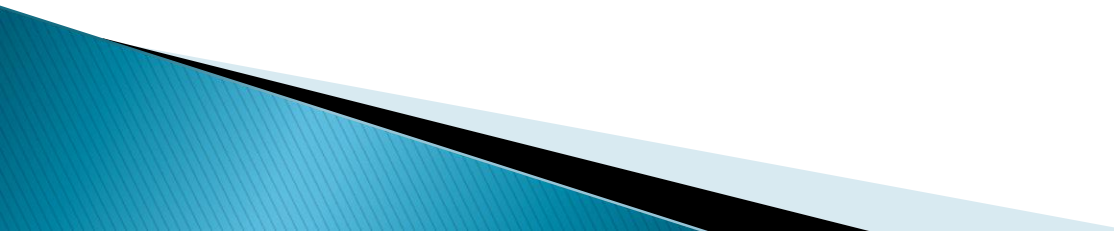
Written compliance program:

- ▶ Must contain:
 - ▶ Description of the process / job / etc.
 - ▶ Details of how exposures will be reduced
 - ▶ Air monitoring data
- 

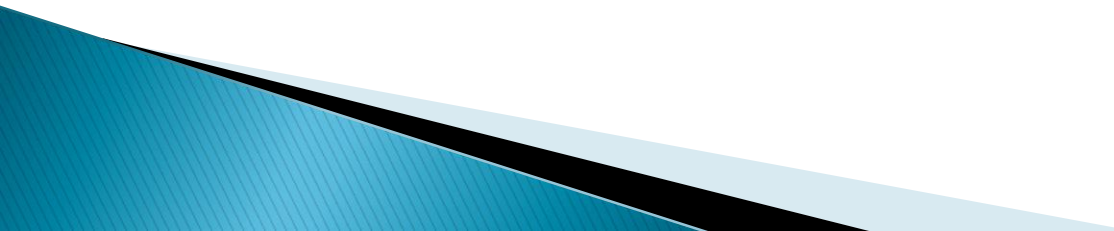
Written compliance program:

- ▶ Implementation schedule
 - ▶ Work practice controls
 - ▶ Administrative controls
 - ▶ Any other relevant information
 - ▶ Reviewed / updated annually
- 

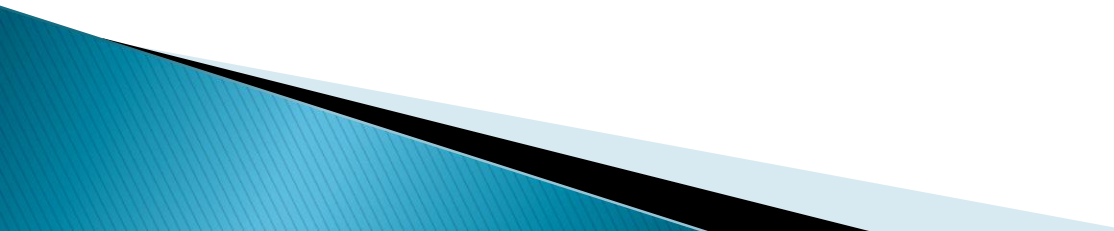
Respirators:

- ▶ Must be appropriate for exposure
 - ▶ Written respirator program
 - ▶ When employee asks for one
 - ▶ PAPR if employee asks for one
- 

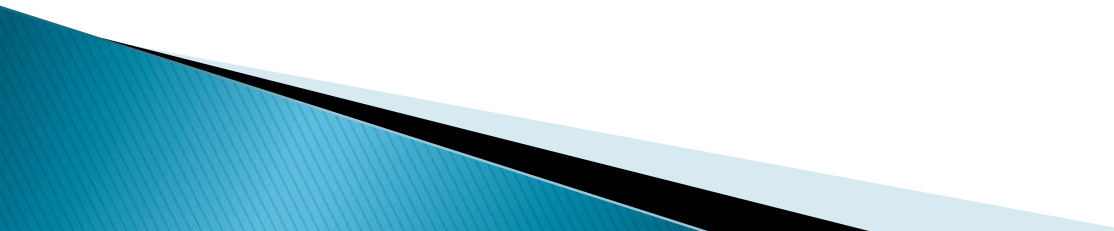
If exhaust ventilation used:

- ▶ Quarterly measurements to evaluate effectiveness
 - ▶ Evaluation within five days of any process or production changes
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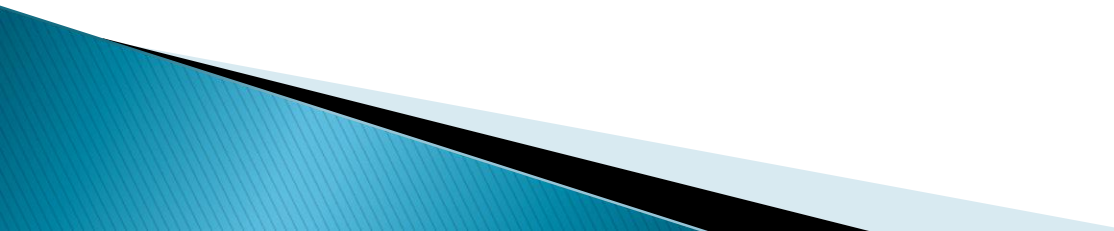
If exhaust air recirculated:

- ▶ Must have HEPA filter, with backup filter
 - ▶ Control system to monitor lead in air stream, bypass if fails
- 

PPE:

- ▶ If over the PEL, coveralls or equivalent
 - ▶ Gloves, head and shoe covers
 - ▶ Weekly if under 200 ug/m³, daily if over
 - ▶ Laundering / disposal
- 


Housekeeping:

- ▶ Surfaces as lead-free as practicable
 - ▶ NO compressed air cleaning
 - ▶ HEPA vacuum, do not dry sweep
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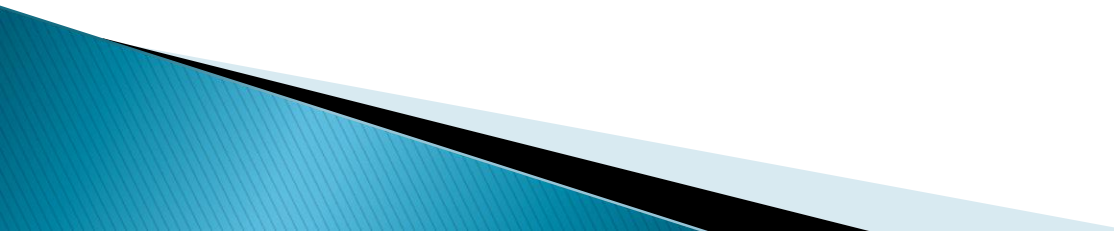
Hygiene facilities/ practices:

- ▶ No eating, drinking/smoking/etc.
- ▶ Clean change rooms
- ▶ Separate lockers
- ▶ Showers at end of work shift
- ▶ No clothes/ equip. goes home–

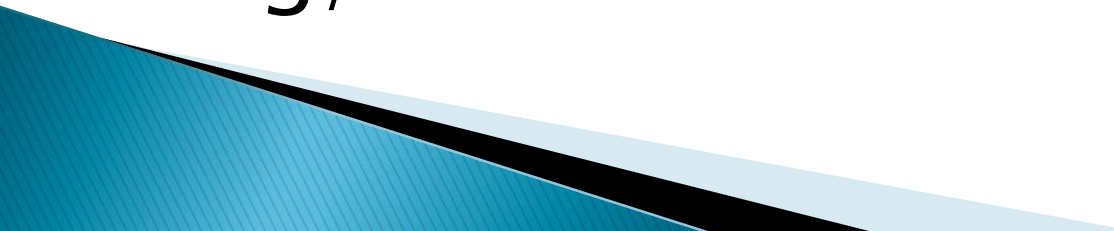
AVOID TAKE-HOME LEAD



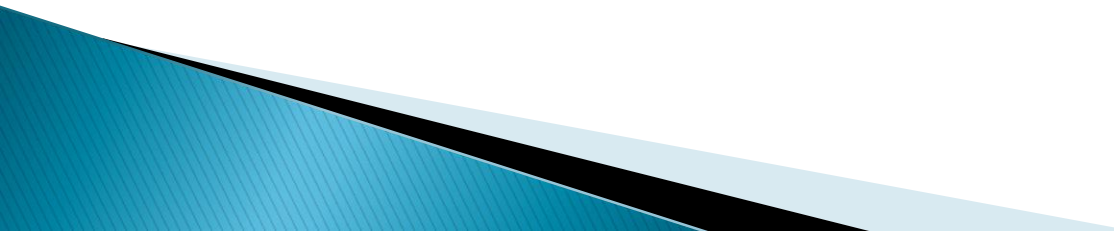
Hygiene facilities/ practices:

- ▶ Lunchrooms (filtered air)
 - ▶ Wash hands/face
 - ▶ No work clothes in lunchroom unless vacuumed
- 

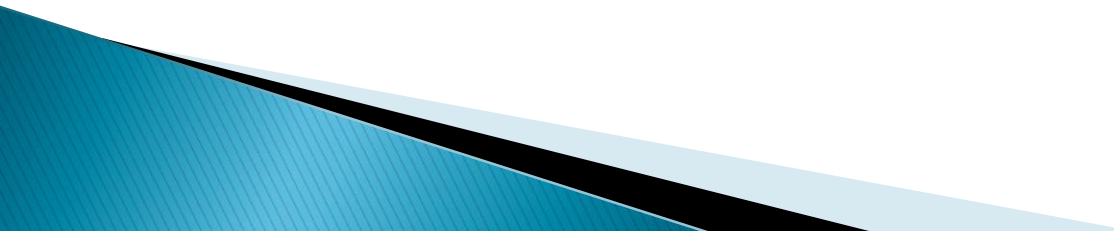
Medical monitoring:

- ▶ All employees potentially over AL
 - ▶ for more than 30 days per year
 - ▶ Blood lead / ZPP
 - ▶ At least every 6 months
 - ▶ At least every 2 months if over 40 ug/dl
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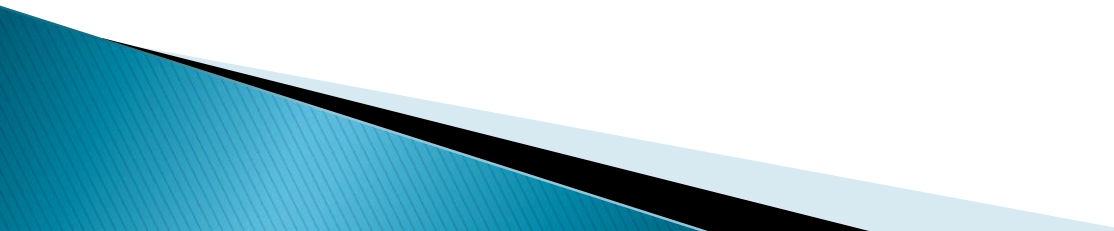
Medical monitoring:

- ▶ At least monthly during medical removal
 - ▶ Notification in writing within 5 days if over 40 ug/dL
 - ▶ Medical removal at 60 ug/dL, or 3-test average of 50 ug/dL
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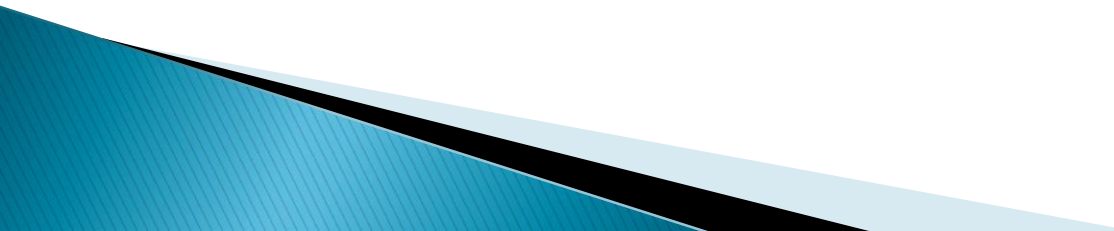
Medical examination:

- ▶ Any employee assigned to work where exposures exceed AL
 - ▶ Blood lead over 40 ug/dL
 - ▶ Concerns over health status
 - ▶ Symptoms of lead poisoning
- 

Training:

- ▶ Contents of the Standard
 - ▶ Operations with lead exposure
 - ▶ Respirators
 - ▶ Medical surveillance
 - ▶ Lead compliance plan
- 

Recordkeeping:

- ▶ Exposure data
 - ▶ Respirators
 - ▶ Employee info
 - ▶ Medical surveillance info
 - ▶ Keep forever!!!
- 



UNITED STATES DEPARTMENT OF LABOR

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

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OSHA Software *Expert Systems*

OSHA General Industry Lead Advisor 1.0 December 2000

OSHA's Lead in General Industry Advisor is **multi-purpose**, interactive, expert software. The Lead in General Industry Advisor as employers, employees, and physicians and other health care providers to understand the requirements of the general industry stan on occupational exposure to LEAD (29 CFR 1910.1025).The software provides an introduction to the scope and logic of the regula and provides a framework to facilitate compliance.

OSHA requirements are set by statute, standards, and regulations. OSHA has tried to provide accurate information in this program you should not rely on the guidance provided by the program as being comprehensive or binding on the government.

This Advisor software does not replace or amend the official text of the regulation, as published in 29 CFR 1910.1025. You should the full text of the OSHA Standards that are applicable to your work. You should seek appropriate legal or other professional assist



Lead in General Industry

File Edit Options Question

Lead in General Industry



Employer / Employee Menu

Please select a topic When you are finished, press "Prepare a report and EXIT"

- ☐ Does this standard apply to my facility ?
- ☐ Workers are exposed to lead - what is required ?
- ☐ Estimate the annual number of air monitoring samples to be taken
- ☐ Evaluate individual blood lead levels and schedule BLL testing.
- ☐ Can an employee on medical removal return to work?

HELP

Keywords

Prepare Report and EXIT

WORKING

Questions? Additional assistance? Request a consultation visit?

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 - ▶ On-Site Consultation Program
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 - ▶ 617-969-7177 ext. 314
- 